

REMARKS

In the Claims:

Claims 6, 8-11 and 21-25 remain in this application. Claims 6 and 21 have been amended. These amendments have support in the original claims, specification and/or figures. As such, no new matter has been added.

103(a) Rejection:

Claims 6, 8-11 and 21-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor et al. (U.S. 2002/0145194) in view of Rabin et al. (WO 03/046265) and Chu et al. (U.S. 6,804,966). In response, Applicant has amended claims 6 and 21.

Claim 6, as amended, includes the element of :

a plurality of nano-wires extending between said first electrode and said second electrode, wherein the plurality of nano-wires comprise a higher density proximate to said area of higher heat dissipation rate, a lower density *surrounding* the higher density proximate to an intermediate area between said area of higher heat dissipation rate and said remainder of the microelectronic die, a further lower density *surrounding* the lower density, and an absence of nano-wires proximate to said remainder of the microelectronic die, *the higher density, lower density, and further lower density nano-wires forming concentric ovals.* (emphasis added)

Applicant notes in the Action (page 4) that Chu is considered as teaching adjusting the density of thermoelectric elements according to the amount of heat flux. While Chu recites a thermoelectric assembly employing multiple element array regions of different density, there is no teaching or suggestion, however in Chu of nano-wires comprising three diminishing densities forming concentric ovals as now claimed in claim 6. Since the O'Connor and Rabin and Chu references fail to teach or suggest a plurality

of nano-wires extending between said first electrode and said second electrode, wherein the plurality of nano-wires comprises a higher density proximate to said area of higher heat dissipation rate, a lower density surrounding the higher density proximate to an intermediate area between said area of higher heat dissipation rate and said remainder of the microelectronic die, a further lower density surrounding the lower density, and an absence of nano-wires proximate to said remainder of the microelectronic die, the higher density, lower density, and further lower density of nano-wires forming concentric ovals, the combination of references can not render claim 6 obvious. Accordingly, Applicant respectfully requests that the 103(a) rejection of claim 6 be withdrawn.

Applicant notes that independent claim 21 shares similar claim features with claim 6 and is likewise patentable over the O'Connor and Rabin and Chu combination of references for at least the reasons mentioned above. Accordingly, Applicant respectfully requests that the 103(a) rejection of claim 21 be withdrawn.

Based at least upon their dependency to claims 6 or 21, Applicant respectfully submits that dependent claims 8-11 and 22-25 are likewise patentable over the O'Connor and Rabin and Chu combination of references. Accordingly, Applicant respectfully requests the 103(a) rejection of claims 8-11 and 22-25 be withdrawn.

CONCLUSION

Applicant respectfully submits that claims 6, 8-11 and 21-25 are in condition for allowance and such action is earnestly requested. The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500221. The Examiner is invited to call David Guglielmi at (503) 712-1610 if there remains any issue with allowance of this case.

Respectfully submitted,

Shriram Ramanathan et al.

Dated: 8/14/09

/David L. Guglielmi/Reg. No. 55,229
David L. Guglielmi
Registration No. 55,229
Attorney for Applicant

Intel Corporation
2111 NE 25th Ave
Hillsboro, OR 97124
(503)712-1610